

Inn'formal Probability Seminar

Matthew Kwan (ISTA)

"Resolution of the Quadratic Littlewood-Offord problem"

Abstract:

Consider a quadratic polynomial $Q(\xi_1, \ldots, \xi_n)$ of independent Rademacher random variables. To what extent can $Q(\xi_1, \ldots, \xi_n)$ concentrate on a single value? This is a quadratic version of the classical Littlewood-Offord problem. In this talk I'll introduce the problem and discuss a new proof of an essentially optimal bound, as conjectured by Nguyen and Vu.

Joint work with Lisa Sauermann.